

RECENT FISHERY PUBLICATIONS

FISH AND WILDLIFE SERVICE PUBLICATIONS

THESE PROCESSED PUBLICATIONS ARE AVAILABLE FREE FROM THE OFFICE OF INFORMATION, U. S. FISH AND WILDLIFE SERVICE, WASHINGTON 25, D. C. TYPES OF PUBLICATIONS ARE DESIGNATED AS FOLLOWS:

- CFS - CURRENT FISHERY STATISTICS OF THE UNITED STATES.
 FL - FISHERY LEAFLETS.
 SEP.- SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.
 SL - STATISTICAL LISTS OF DEALERS IN AND PRODUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.

Number	Title
CFS-3138	- New York Landings, 1962 Annual Summary, 12 pp.
CFS-3159	- North Carolina Landings, 1962 Annual Summary, 8 pp.
CFS-3180	- South Carolina Landings, 1962 Annual Summary, 5 pp.
CFS-3182	- Fish Meal and Oil, 1962 Annual Summary, 4 pp.
CFS-3190	- Frozen Fishery Products, April 1963, 8 pp.
CFS-3191	- Wisconsin Landings, 1962 Annual Summary, 3 pp.
CFS-3193	- Michigan Landings, February 1963, 3 pp.
CFS-3194	- Maryland Landings, March 1963, 3 pp.
CFS-3196	- Ohio Landings, March 1963, 2 pp.
CFS-3197	- Shrimp Landings, October 1962, 8 pp.
CFS-3198	- Virginia Landings, March 1963, 3 pp.
CFS-3199	- New York Landings, March 1963, 4 pp.
CFS-3201	- Mississippi Landings, March 1963, 3 pp.
CFS-3202	- Wisconsin Landings, March 1963, 2 pp.
CFS-3205	- Maine Landings, March 1963, 4 pp.
CFS-3206	- California Landings, March 1963, 4 pp.
CFS-3208	- North Carolina Landings, April 1963, 4 pp.
CFS-3210	- New Jersey Landings, March 1963, 3 pp.
CFS-3215	- Florida Landings, April 1963, 8 pp.

Wholesale Dealers in Fishery Products, 1962 (Revised):

- SL- 5 - Connecticut, 1 p.
 SL- 20 - Texas (Coastal Area), 7 pp.
 SL- 43 - Alabama (Mississippi River and Tributaries), 1 p.
 SL- 45 - Mississippi (Mississippi River and Tributaries), 1 p.
 SL-151 - Firms Manufacturing Marine Animal Scrap, Meal, Oil, Solubles, and Homogenized Condensed Fish, 1962 (Revised).
 FL-547 - Bibliography of Publications of the Branch of Technology (Author Index, 1961), by F. Bruce Sanford and Helen E. Plastino, 4 pp., April 1963.
 FL-548 - Living and Working Conditions on the Pribilof Islands, Alaska, by C. Howard Baltzo, 6 pp., illus., February 1963.

Sep. No. 680 - Mechanizing the Blue Crab Industry - Part I - Survey of Processing Plants.

Sep. No. 681 - Sea Scallop Industry of Canada.

Sep. No. 682 - Development of the John N. Cobb Pelagic Trawl--A Progress Report.

Biological Laboratory, Galveston, Texas, Fishery Research (for the year ending June 30, 1962), Circular 161, 105 pp., illus., 1962. Summarizes the research work carried out at the Galveston Biological Laboratory during the fiscal year ended June 30, 1962. Describes in detail research programs on the shrimp fishery, industrial fishery, estuaries, and physiology and behavior. Also includes special reports on chemicals toxic to the red-tide organism; marking spiny lobsters, Panulirus argus, and blue crabs, Callinectes sapidus, with biological stains; small beam net for sampling postlarval shrimp; use of Atkins-type tags on shrimp; immersion staining of postlarval shrimp; a device for measuring live shrimp; and distribution of pink shrimp larvae and postlarvae.

Distribution of Tunas in Oceanic Waters of the Northwestern Atlantic, by James L. Squire, Jr., Fishery Bulletin 211 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 62, pp. 323-341), 23 pp., illus., printed, 20 cents, 1962.

Economic Review of the Great Lakes Commercial Fisheries, 1940-1959, by Keith D. Brouillard, Circular 141, 20 pp., illus., 1963. Examines economic developments in the Great Lakes commercial fisheries since 1940. The catch, principal types of gear, marketing, and recent developments in the fishery also are reviewed. In a section on recommendations, the necessity for expanded research in fishing methods and marketing of the presently underutilized species is pointed out, consideration of fishermen's cooperatives is suggested, use of available species in new products is discussed, and cooperation among all research agencies is indicated to be a requirement if the fishing industry is to expand and strengthen its economic position.

THE FOLLOWING ENGLISH TRANSLATION OF A FOREIGN LANGUAGE ARTICLE IS AVAILABLE ONLY FROM THE CALIFORNIA AREA OFFICE, U. S. BUREAU OF COMMERCIAL FISHERIES, 101 SEASIDE AVE., TERMINAL ISLAND, CALIF.

Experiments on the Green Meat of Tuna, Translation Series No. 6, 53 pp., illus., processed, May 1963. (Translated from the Japanese, Report of Research Vessel "Shoyo Maru," 1960, May 1961.)

THE FOLLOWING ENGLISH TRANSLATIONS OF FOREIGN LANGUAGE ARTICLES ARE AVAILABLE ONLY FROM THE FISHERIES BIOLOGICAL LABORATORY, U. S. BUREAU OF COMMERCIAL FISHERIES, BOX 3830, HONOLULU, HAWAII.

Biological Comparison between the Pacific Tunas, Part III, by Tsuyoshi Kawasaki and Masahiro Asano, 10 pp., illus., processed, May 1963. (Translated from the Japanese, Bulletin of Tohoku Regional Fisheries Research Laboratory, March 1962, No. 20, pp. 45-50.)

Some Data on the Ichthyofauna of Pacific Ocean Flotsam, by L. N. Besednov, 7 pp., illus., processed, May 1963. (Translated from the Russian, Works of the Institute of Oceanology, vol. 41, 1960, pp. 192-197.)

THE FOLLOWING PUBLICATIONS ARE AVAILABLE ONLY FROM THE SPECIFIC OFFICE MENTIONED.

Annual Report of the Bureau of Commercial Fisheries Biological Laboratory, Beaufort, N. C. (For the Fiscal Year Ending June 30, 1961), Circular 148, 41 pp., illus., 1963. (Bureau of Commercial Fisheries, Biological Laboratory, Beaufort, N. C.) Presents information on research programs conducted by the laboratory including blue crab, shad, menhaden, Atlantic Coast striped bass, and radiobiological programs. Also discusses laboratory personnel participation in the Atlantic States Marine Fisheries Commission, work conferences with other Federal agencies, and other topics.

(Chicago) Monthly Summary of Chicago's Wholesale Market Fresh and Frozen Fishery Products Receipts, Prices, and Trends, May 1963, 14 pp. (Market News Service, U. S. Fish and Wildlife Service, U. S. Customs House, 610 S. Canal St., Room 1014, Chicago 7, Ill.) Receipts at Chicago by species and by states and provinces for fresh- and salt-water fish and shellfish; and weekly wholesale prices for fresh and frozen fishery products; for the month indicated.

Gulf of Mexico Monthly Landings, Production and Shipments of Fishery Products, March 1963, 8 pp. (Market News Service, U. S. Fish and Wildlife Service, Room 609, 600 South St., New Orleans 12, La.) Gulf States shrimp, oyster, finfish, and blue crab landings; crab meat production; LCL express shipments from New Orleans; wholesale prices of fish and shellfish on the New Orleans French Market; fishery imports at Port Isabel and Brownsville, Texas, from Mexico; Gulf menhaden landings and production of meal, solubles, oil; and sponge sales; for the month indicated.

A Guide and Key to the Aquatic Plants of the Southeastern United States, by Don E. Eyles and J. Lynne Robertson, Jr., Circular 158, 155 pp., illus., printed, 1944, reprinted 1963, limited distribution. (Branch of Fishery Management Services, Bureau of Sport Fisheries and Wildlife, U. S. Fish and Wildlife Service, Washington 25, D. C.)

New England Fisheries--Monthly Summary, May 1963, 21 pp. (Market News Service, U. S. Fish and Wildlife Service, 10 Commonwealth Pier, Boston 10, Mass.) Review of the principal New England fishery ports. Presents data on fishery landings by ports and species; industrial-fish landings and ex-vessel prices; imports; cold-storage stocks of fishery products in New England warehouses; fishery

landings and ex-vessel prices for ports in Massachusetts (Boston, Gloucester, New Bedford, Provincetown, and Woods Hole), Maine (Portland and Rockland), Rhode Island (Point Judith), and Connecticut (Stonington); frozen fishery products prices to primary wholesalers at Boston, Gloucester, and New Bedford; and Boston Fish Pier and Atlantic Avenue fishery landings and ex-vessel prices by species; for the month indicated.

New York City's Wholesale Fishery Trade--Monthly Summary--April 1963, 16 pp. (Market News Service, U. S. Fish and Wildlife Service, 155 John St., New York 38, N. Y.) Includes summaries and analyses of receipts and prices on wholesale Fulton Fish Market, including both the salt- and fresh-water sections; imports entered at New York customs district; primary wholesalers' selling prices for fresh, frozen, and selected canned fishery products; marketing trends; and landings at Fulton Fish Market docks and Stonington, Conn.; for the month indicated.

(Seattle) Washington and Alaska Receipts and Landings of Fishery Products for Selected Areas and Fisheries, Monthly Summary, May 1963, 9 pp. (Market News Service, U. S. Fish and Wildlife Service, 706 Federal Office Bldg., 909 First Ave., Seattle 4, Wash.) Includes Seattle's landings by the halibut and salmon fleets reported through the exchanges; landings of halibut reported by the International Pacific Halibut Commission; landings of otter-trawl vessels as reported by the Fishermen's Marketing Association of Washington; local landings by independent vessels; coastwise shipments from Alaska by scheduled and non-scheduled shipping lines and airways; imports from British Columbia via rail, motor truck, shipping lines, and ex-vessel landings; and imports from other countries through Washington Customs District; for the month indicated.

MISCELLANEOUS PUBLICATIONS

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM. CORRESPONDENCE REGARDING PUBLICATIONS THAT FOLLOW SHOULD BE ADDRESSED TO THE RESPECTIVE ORGANIZATION OR PUBLISHER MENTIONED. DATA ON PRICES, IF READILY AVAILABLE, ARE SHOWN.

ALABAMA:

"Commercial and Sport Fishing on Guntersville Lake during the Period of March 15-June 13, 1960," by C. E. White Jr., and Ben Jaco, article, Proceedings of the Fifteenth Annual Conference, Southeastern Association of Game and Fish Commissioners, pp. 411-419. Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1961.

"An Evaluation of Prestocking Checks Conducted by Fishery Biologists in Alabama Ponds," by H. D. Kelly, article, Proceedings of the Fifteenth Annual Conference, Southeastern Association of Game and Fish Commissioners, pp. 186-193, printed, Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1961.

ALASKA:

"A Study of the Downstream Migrations of Anadromous Fishes in the Taku River, Alaska," by William R. Meehan and Donald B. Siniff, article, Transactions of the American Fisheries Society, vol. 91, no. 4,

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

1962, pp. 399-407, printed. Secretary, American Fisheries Society, P. O. Box 483, McLean, Va.

BACTERIOLOGY:

Marine Microbiology (Deep Sea), by A. E. Kriss, 554 pp., printed, 126s. (about US\$17.65). Oliver and Boyd Ltd., 98 Gr. Russell St., London WC1, England, 1963.

BATHYSCAPH:

"The Bathyscaph as an Acoustic Vehicle," by Don Walsh, article, Naval Research Reviews, April 1962, pp. 14-18, illus., processed, single copy 15 cents. Office of Naval Research, Washington, D. C. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Discusses how the "Model T" of the deep submersibles is being relied upon to carry on an ambitious scientific program. "The bathyscaph Trieste has now been in operation with the U. S. Navy for more than 3½ years. During that time this unique Bureau of Ships-Office of Naval Research-sponsored craft has proved the value of the manned deep submersible in oceanographic exploration. It is the purpose of this short discussion to outline past, present, and future acoustic programs for the craft and also to suggest some lines of interest that could be pursued," states the author.

BIBLIOGRAPHIES:

Bibliography of Oceanographic Publications, by Mark W. Pangborn, Jr., 23 pp., printed. Interagency Committee on Oceanography, Room 1714, Bldg. T-3, 17th St., and Constitution Ave. NW., Washington 25, D. C., 1963.

BRAZIL:

Brazil's Licensing and Exchange Controls, OBR-63-31, 12 pp., printed 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., January 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Discusses the import and export controls of Brazil, and United States import and export controls.

Sudene, Boletim de Estudos de Pesca, vol. 2, no. 8, August 1962, 17 pp., processed in Portuguese. Departamento de Estudos Especiais, Division de Pesca, Superintendencia do Desenvolvimento do Nordeste, Edificio Juscelino Kubitschek, 12º Andar, Recife, Brazil. Includes, among others, these articles: "Análise das Variacoes Estacionais da Producao de Lagosta na Paraiba" (Analysis at Various Stations of Spiny Lobster Production in Paraiba), by J. C. de Moura; "III Reuniao Nacional de Pesquisas sobre a Pesca Maritima" (Third National Meeting of Fishery Experts on the Marine Fishery), by J. C. de Moura; "Constituicao da Pesca do Nordeste S/A" (Constitution of Fishermen's Society of Northeastern Brazil); "Segunda Operacao de Pesca de Logosta do 'Presidente Kubitschek'" (Second Exploratory Spiny Lobster Cruise of the Presidente Kubitschek), by J. C. de Moura; and "Estudos da Biologia da Pesca de Lagostas" (Biological Studies in the Spiny Lobster Fishery).

Sudene, Boletim de Estudos de Pesca, vol. 3, no. 2, February 1963, 19 pp., illus., processed in Portuguese. Departamento de Estudos Especiais, Divi-

sao de Pesca, Superintendencia do Desenvolvimento do Nordeste, Edificio Juscelino Kubitschek, 12º Andar, Recife, Brazil. Includes, among others, these articles: "Pescarias de Corso Multiplo com Pequenas Embarcacoes" (Fishing with Multiple Troll Lines on Small Vessels); "Tentativas dos Lagosteiros Franceses no Nordeste" (Efforts of the French Spiny Lobster Vessels in Northeast Brazil Waters); and "Pescarias de Atuns e Especies Afins em Aguas Costeiras" (Fishing for Tuna and Species Found in Coastal Waters), by J. Bonifacio Fonseca.

Sudene, Boletim de Estudos de Pesca, vol. 3, no. 3, March 1963, 26 pp., illus., processed in Portuguese. Departamento de Estudos Especiais, Divisao de Pesca, Superintendencia do Desenvolvimento do Nordeste, Edificio Juscelino Kubitschek, 12º Andar, Recife, Brazil. Contains, among others, articles on: "Experiencia com Rede de Espera em Pescarias de Lagosta" (Experiment with a Tangle Net in Fishing for Spiny Lobster), by Soloncy J. C. de Moura; and "A Pesca no Territorio de Fernando de Noronha" (The Fishery in the Waters of the Territory of Fernando de Noronha).

Sudene, Boletim de Estudos de Pesca, vol. 3, no. 4, April 1963, 26 pp., processed in Portuguese. Departamento de Estudos Especiais, Divisao de Pesca, Superintendencia do Desenvolvimento do Nordeste, Edificio Juscelino Kubitschek, 12º Andar, Recife, Brazil. Contains, among others, articles on: "Experimentos de Cultura Racional de Ostras" (Experiments with the Practical Culturing of Oysters); "Grupo de Trabalho para Desenvolvimento da Pesca" (Work Group for Fishery Development); and "Regulamento da Superintendencia do Desenvolvimento da Pesca" (Regulation for the Administration of Fishery Development).

CALIFORNIA:

California Fish and Game, vol. 49, no. 2, April 1963, 64 pp., illus., printed, single copy 75 cents. California Department of Fish and Game, Printing Division, Documents Section, Sacramento 14, Calif. Includes, among others, these articles: "An Evaluation of Five Tag Types Used in a Striped Bass Mortality Rate and Migration Study," by Harold K. Chadwick; and "Commercial Freshwater Fisheries of California," by Sterling P. Davis.

CAMBODIA:

Import Tariff System of Cambodia, OBR-63-48, 2 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., February 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Presents information on units of currency, weights, and measures; tariff structure; method of payment of duty, sales and other internal taxes; trade restrictions; other special regulations; and related subjects.

CANADA:

"Canada's Fisheries Markets in 1962," by T. R. Kinsella, article, Foreign Trade, vol. 119, no. 9, May 4, 1963, pp. 2-8, illus., printed, single copy 25 Canadian cents. Queen's Printer, Government Printing Bureau, Ottawa, Canada. In 1962, the Canadian fisheries landed 1.98 billion pounds of ocean fish worth C\$114.4 million, 16 percent above the 1961 value;

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

had an Atlantic coast catch worth \$67.6 million (up nearly \$7 million) and a Pacific Coast catch worth \$46.8 million; exported fisheries products worth \$156.6 million, an all-time record, to 88 countries; imported fisheries products worth \$19.6 million in first 11 months, with shrimp in the lead; made record sales of fresh and frozen fish worth \$103.1 million, with most going to the United States; sold abroad a large quantity of canned fish worth \$19.3 million as a result of large packs of pink salmon and sardines; and marketed \$12.7 million worth of fresh and frozen lobster in foreign countries, particularly the United States, according to the author.

"The Canadian Cod Fishery and The World Market," by Mary Hatheway, article, Trade News, vol. 15, no. 10-11, April-May 1963, pp. 7-9, processed. Information and Consumer Service, Department of Fisheries, Ottawa, Canada. Discusses Canadian fishery products exports; trade with the United States; the 1962 catch of Atlantic groundfish--963 million pounds, including 586 million pounds of cod; the function of the International Commission for the Northwest Atlantic Fisheries (ICNAF); and economic trends in the Newfoundland cod fishery.

Journal of the Fisheries Research Board of Canada, vol. 20, no. 2, March 1963, 335 pp., illus., printed, single copy C\$1.50. Queen's Printer and Controller of Stationery, Ottawa, Canada. Includes, among others, these articles: "Big Effects from Small Causes: Two Examples from Fish Population Dynamics," by W. E. Ricker; "Growth and Mortality of Whitefish in Three Unexploited Lakes in Northern Canada," by W. A. Kennedy; "Summer Food of Lake Whitefish, *Coregonus clupeaformis* Mitchell, from Heming Lake, Manitoba," by N. H. F. Watson; "Some Aspects of Olfactory and Visual Responses in Pacific Salmon," by J. R. Brett and C. Groot; "Movements, Growth, and Survival of Marked and Tagged Lobsters Liberated in Egmont Bay, Prince Edward Island," by D. G. Wilder; "The Movement of Tagged Great Slave Lake Fish," by J. J. Keleher; and "Influence of Pond Formation on Brook Trout Movements and Angling Success," by M. W. Smith.

CARP:

Let's Go Carp Fishing, by W. R. Long, Information Leaflet, 8 pp., processed. Region III, Texas Game and Fish Commission, 530 Beckham St., Tyler, Tex. Discusses lakes and sluggish streams where carp are found; kinds of bait and tackle to use; and methods of storing, cleaning, and cooking.

CATFISH:

"Observations on the Food Habits of the Flathead and Blue Catfish in Alabama," by Bradford E. Brown and J. S. Dendy, article, Proceedings of the Fifteenth Annual Conference Southeastern Association of Game and Fish Commissioners, pp. 219-222. Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1961.

CEYLON:

Basic Data on the Economy of Ceylon, OBR-63-90, 20 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., April 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office,

Washington 25, D. C.) Discusses, among other items related to the economy of Ceylon, the fishing industry which has been furnished substantial foreign assistance and expert advice on the development of its fishery resources. Data on production, consumption, and number of persons engaged in Ceylon's fishing industry are included.

COD:

"La peche a la morue au Canada" (The Cod Fishery in Canada), by T. H. Turner, article, La Peche Maritime, vol. 43, no. 1021, April 1963, pp. 243-247, illus., printed in French, single copy 11 NF (about US\$2.25). Les Editions Maritimes, 190 Boulevard Haussmann, Paris, France.

"Transatlantic Journey of a Tagged Cod," by J. A. Gulland and G. R. Williamson, article, Nature, vol. 195, no. 4844, 1962, p. 921, printed. St. Martin's Press, Inc., 175 Fifth Ave., New York 10, N. Y.

CONGO REPUBLIC:

Import Tariff System of the Republic of the Congo (Leopoldville), OBR-63-82, 2 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., March 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Presents information on units of currency, weights, and measures; bases of specific and ad valorem duties; customs surtaxes and internal taxes; shipping documents and fees; and trade restrictions.

CRABS:

The Glaucothoe Stage of DARDANUS VENOSUS (H. Milne-Edwards) (Decapoda: Anomura), by Anthony J. Provenzano, Jr., Contribution No. 443, 12 pp., illus., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 13, no. 1, March 1963, pp. 11-22.) The Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

CZECHOSLOVAKIA:

"Ichthyofauna tokov juznych svahov Vihorlatu a Blatskej niziny" (Ichthyofauna of the Southern Slopes of Vihorlat and of the Blatska Lowland), by Juraj Holcik and Vitazoslav Misik, article, Biologia, vol. XVII, no. 6, 1962, pp. 422-439, illus., printed in Slovenian with Russian, German, and English abstracts. Vydava Vydavatel'stvo Slovenskej Akademie Vied, Bratislava, Czechoslovakia.

DENMARK:

Economic Developments in Denmark, 1962, OBR-63-58, 8 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., March 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Contains, in addition to information on foreign trade and investment, a brief report on the Danish fishing industry in 1962.

Fiskeriundersogelser i 1962 ved Danmark, Faeroerne og Gronland (Fisheries Research in 1962 in Denmark, the Faroes, and Greenland), by E. Bertelsen and Paul M. Hansen, Skrifter fra Danmarks Fiskeri-og Havundersogelser Nr. 23, 114 pp., illus., printed in

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

Danish, Kr. 9.75 (about US\$1.45). 1 Kommission Hos Andr. fr. Host & Son, Copenhagen, Denmark, 1963. Annual report of the biological research conducted by the staffs of the Danish Ministry of Fisheries and the Ministry for Greenland during 1962. The section on Denmark and the Faroese covers (1) Inner Danish Waters--plaice and cod fisheries in Bagenkop, Norway lobsters in the Skagerrak and the Kattegat, fishing eels with an air-bubble curtain; (2) The North Sea and the Skagerrak--sole population in the North Sea, turbot fishery potential in the North Sea, Danish and foreign plaice fisheries in the North Sea, features of the whiting's life history, the tide and the sand eel fishery, influence of storms on the blue mussel culture grounds; (3) Faroese and Northern Ocean Areas--coalfish at the Faroese; (4) Salmon and Fresh Water Fisheries--judgments for polluting fishing waters, 1955/1962, the Danish salmon fishery in the Baltic Sea, 1961/1962 season; and (5) Physiological and Other Experimental Research. The section on Greenland covers sharks in Greenland waters, and fishery research in the Umanak district in the summer of 1962.

-- A. W. Anderson

ECOLOGY:

"Ecological History of Lake Pontchartrain, An Estuarine Community," by Reznat M. Darnell, article, The American Midland Naturalist, vol. 68, no. 2, 1962, pp. 434-444, printed. American Midland Naturalist, University of Notre Dame, Notre Dame, Ind.

ELECTRICAL FISHING:

"Consideraciones sobre la Pesca por Medio de la Electricidad (Considerations on Electrical Fishing)," by R. Kleist, article, Puntal vol. 9, no. 102, September 1962, pp. 16-19, illus., printed in Spanish. Puntal, Apartado 316, Alicante, Spain.

"The Efficiency of a Direct Current Electric Fishing Method in Trout Streams," by J. S. Alabaster and W. G. Hartley, article, The Journal of Animal Ecology, vol. 31, no. 2, 1962, pp. 385-388, printed. Blackwell Scientific Publications, 24 Broad St., Oxford, England.

EVOLUTION:

"Biologist Explains Evolution of Fishes," by Barry O. Freeman, article, Mississippi Game and Fish, vol. 24, no. 16, March-April 1963, p. 13, printed. Mississippi Game and Fish Commission, Jackson, Miss.

FARM PONDS:

Farm Ponds in Douglas County, Kansas, and Their Use in Fish-Production, by Claude E. Hastings and Frank B. Cross, Miscellaneous Publication No. 29, 21 pp., printed. Museum of Natural History, University of Kansas, Lawrence, Kans., 1962.

FJI ISLANDS:

Import Tariff System of the Fiji Islands, OBR-63-39, 2 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., March 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Presents information on units of currency, weights, and measures; bases of specific and ad valorem duties; method of pay-

ment of duty; sales and other internal taxes; consular documents and fees; trade restrictions; other special regulations; and related subjects.

FISH BEHAVIOR:

"The Fright Reaction of Fish," by Wolfgang Pfeiffer, article, Biological Reviews, vol. 37, no. 4, 1962, pp. 495-511, printed. Cambridge University Press, 200 Euston Rd., London NW1, England.

FISH ERADICANT:

"Toxaphene as a Fish Eradicant in Florida," by Melvin T. Huish, article, Proceedings of the Fifteenth Annual Conference, Southeastern Association of Game and Fish Commissioners, pp. 200-205, printed. Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1961.

FISHING GEAR:

"Les Engins de Peche, Les Nasses et Casiers (Fishing Gear, Traps and Lobster-Pots)," by A. Percier, article, France Peche, no. 66, October 1962, pp. 41-44, illus., printed in French. France Peche, Boite Postale 179, Lorient, France.

FISHING WITH LIGHTS:

"La Peche a la Lumiere, Peut-Elle Interesser un Jour Tous les Ports Francais (Fishing with Lights, Could it be of Interest in the future to all the French Fishing Ports)?" by Robert Lenier, article, France Peche, no. 67, November 1962, pp. 19-22, 24, illus., printed in French. France Peche, Boite Postale 179, Lorient, France.

FISH MEAL:

Nutrient Composition and Evaluation of British Columbia Whole Herring Meal, by B. E. March, J. Biely and H. L. A. Tarr, 10 pp., printed. Reprinted from Journal of the Fisheries Research Board of Canada, vol. 20, no. 1, 1963, pp. 229-238. Queen's Printer and Controller of Stationery, Ottawa, Canada.

FISH MUSCLE:

Apparatus for Measuring the Energy Input in Cutting Fibers of Fish Muscle, by Hans Buttkeus, 6 pp., illus., printed. (Reprinted from Journal of the Fisheries Research Board of Canada, vol. 20, no. 1, 1963, pp. 181-186.) Queen's Printer and Controller of Stationery, Ottawa, Canada.

The Bound Nucleotides of Freshly Frozen and Severely Denatured Frozen Lingcod Muscle, by Neil Tomlinson and S. E. Geiger, 8 pp., printed. (Reprinted from Journal of the Fisheries Research Board of Canada, vol. 20, no. 1, 1963, pp. 187-194.) Queen's Printer and Controller of Stationery, Ottawa, Canada.

Red and White Muscle of Fish in Relation to Rigor Mortis, by Hans Buttkeus, 17 pp., illus., printed. (Reprinted from Journal of the Fisheries Research Board of Canada, vol. 20, no. 1, 1963, pp. 45-58.) Queen's Printer and Controller of Stationery, Ottawa, Canada.

FISH POISONS:

Haptenic Properties of Paralytic Shellfish Poison, by J. E. Campbell, Quarterly Progress Report no. 8 (April 1-June 30, 1962), 18 pp., illus., printed. Robert A. Taft Sanitary Engineering Center, Cincinnati, Ohio, June 30, 1962.

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

FISH PONDS:

"Results of a Six-Year Investigation of Chemical Soil and Water Analysis and Lime Treatment in Georgia Fish Ponds," by Willard W. Thomaston and Howard D. Zeller, article, Proceedings of the Fifteenth Annual Conference, Southeastern Association of Game and Fish Commissioners, pp. 236-245, printed, Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1961.

FISH POPULATIONS:

Certain of the Laws Governing the Effect of Fishing Operations on the Structure of Populations and the Individual Characteristics of Fish Belonging to Commercially Exploited Stocks, by G. V. Nikolskii, 21 pp., processed. (Translated from the Russian, Trudy Soveshchani, Ikht. Kom., vol. 13, 1961, pp. 21-33.) Fisheries Laboratory, Ministry of Agriculture, Fisheries and Food, Lowestoft, Suffolk, England, 1962.

"The Effect of Black Bullhead Catfish and Bluegill Removals on the Fish Population of a Small Lake," by Alfred Houser and Bob Grinstead, article, Proceedings of the Fifteenth Annual Conference, Southeastern Association of Game and Fish Commissioners, pp. 193-200, printed, Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1961.

The Laws Governing the Dynamics of Fish Populations, by T. F. Dementieva and others, 20 pp., processed. (Translated from the Russian, Trudy Soveshchani, Ikht. Kom., vol. 13, 1961, pp. 7-20.) Fisheries Laboratory, Ministry of Agriculture, Fisheries and Food, Lowestoft, Suffolk, England, 1962.

"The Natural Regulation of Population in the Salmonidae," by K. Radway Allen, article, New Zealand Science Review, vol. 20, no. 3, 1962, pp. 58-62, printed, New Zealand Association of Scientists, Box 1874, Wellington, New Zealand.

FLORIDA:

The Ecology of Northern Florida Bay and Adjacent Estuaries, by Durbin C. Tabb and others, Technical Series No. 39, 81 pp., illus., printed, Florida State Board of Conservation, W.V. Knott Bldg., Tallahassee, Fla., November 1962.

MECOLIOTIA, a Gastropod Genus New to Florida, by Donald R. Moore, Contribution No. 452, 4 pp., illus., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 13, no. 1, March 1963, pp. 73-76.) The Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

A New Species of LYSIOSQUILLA (Crustacea, Stomatopoda) from the Northern Straits of Florida, by Raymond B. Manning, Contribution No. 445, 4 pp., illus., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 13, no. 1, March 1963, pp. 54-57.) The Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

FLUKE:

"The Fluke Population of Great South Bay in Relation to the Sport Fishery," by John C. Poole, article, New York Fish and Game Journal, vol. 9, no. 2,

1962, pp. 94-117, printed, New York Conservation Department, Albany, N. Y.

FOOD AND AGRICULTURE ORGANIZATION:

Considerations on Fishery Oceanography, by Z. Popovici, FAO Fisheries Biology Technical Paper No. 29, 11 pp., processed, limited distribution. Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, January 1963.

An International Service for Retrieving Aquatic Science Literature, by S. B. Salla, J. S. O'Connor, and R. A. Shappy, FAO Fisheries Biology Technical Paper No. 28, 9 pp., processed, limited distribution. Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, November 1962.

Proceedings of the World Scientific Meeting on the Biology of Tunas and Related Species (Meeting held in La Jolla, Calif., July 2-14, 1962), edited by H. Rosa, Jr., FAO Fisheries Reports No. 6, vol. 1, 104 pp., processed. Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1963. This volume is the revised version of the Draft Report, which was distributed to the participants and to the contributors to the World Meeting on the Biology of Tunas and Related Species. It covers the organization, objectives, and general results of the meeting; resolutions; and section and working group reports. The objectives of the meeting were: (1) to bring together participants from governments and private institutions engaged in studying the identity, distribution, behavior and potential yields of stocks of tunas, bonitos, and related species; and (2) to review and appraise (a) the development of tuna fisheries and their current commercial exploitation; (b) identity, distribution, behavior and potential yields of tuna stocks; (c) specific problems and outlook for future international cooperation in coordinating methods and programs of research; and (d) means whereby such international action could be made possible.

Rapport sur la Sardinelle (SARDINELLA AURITA Valenciennes, Atlantique africain) (Synopsis on the Biology of the Sardine, Sardinella aurita Valenciennes, African Atlantic), by E. Postel, FAO Fisheries Biology Synopsis No. 6, 46 pp., illus., processed in French, limited distribution. Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1960.

Synopsis of Biological Data on Anchovy ENGRAULIS ENCRASICOLUS (Linnaeus) 1758 (Mediterranean and Adjacent Seas), by N. Demir, FAO Fisheries Biology Synopsis No. 26, 44 pp., illus., processed, limited distribution. Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, January 1963.

Synopsis of Biological Data on Hilsa HILSA ILISHA (Hamilton) 1822, by S. R. Pillay and H. Rosa, Jr., FAO Fisheries Biology Synopsis No. 25, 70 pp., illus., processed, limited distribution. Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, January 1963.

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

Synopsis of Biological Data on Sprat SPRATTUS SPRATTUS (Linnaeus) 1758 (Mediterranean and Adjacent Seas), by M. Demir, FAO Fisheries Biology Synopsis No. 27, 40 pp., illus., processed, limited distribution. Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, February 1963.

FOOD PRESERVATION:

The Technology of Food Preservation, by Norman W. Desrosier, 414 pp., illus., printed, domestic \$9.50, foreign \$10.50. The Avi Publishing Co., Inc., P. O. Box 388, Westport, Conn., 1963. This is a timely book in view of the World Food Congress which was held in Washington, D. C., in June 1963. Although the theme of the Congress was "an attack on the citadels of hunger and malnutrition," it was evident that getting food to certain areas of the world involves the use of different types of preservation methods. Only the surface has been scratched in using preservation methods in order to more widely distribute the world's food supply. Application of present information on preservation of food could go far in reducing the number of hungry people in the world. The fundamental principles of food preservation are presented in this book. Included are the principles for the use of refrigeration, canning, drying and dehydrating, salting, fermentation, pickling, chemical additives, and radiation. Also, Chapter 1, "Introduction to Food Technology," is an excellent summary of some of the general knowledge on food preservation. Very timely is the author's statement: "With perhaps only ten percent of the world's population currently consuming preserved foods regularly as important components in diets, the potential for growth of the food preservation industry is enormous, and this growth is clearly recognized at this time. It is urgently needed." "Acceptable Food to Eat," Chapter 2, explores quite adequately the factors at play in describing good food from a sensual, nutritional, and public health standpoint. That the book is up to date is quite evident from the last chapter, "Preservation of Food"--it summarizes the fundamentals for radiation processing of foods. Fish and shellfish are mentioned in several places throughout the book, but not in the detail that those products merit in view of their perishability. The suggested reading lists at the end of each chapter are good; at the end of the book is a list of journals covering the topical areas of the text; and there is an adequate index. In general, this reviewer believes there should have been more on fishery products. However, this book will be of value to producers, processors, distributors, retailers, researchers, food technologists, home economists, and students.

-- Joseph Fileggi

FOOD PROCESSING:

Food Processing Operations--Their Management, Machines, Materials, and Methods, vol. 1, by Maynard A. Joslyn and J. L. Heid, 658 pp., illus., printed, domestic \$19.75, foreign \$20.75. The Avi Publishing Co., Inc., P. O. Box 388, Westport, Conn., 1963. This is one of a contemplated series of books which summarizes the numerous factors involved in successful food-processing operations--from the source of raw materials to the sales outlet. As the title indicates, this book discusses

management, machines, materials, and methods. Divided into three sections, the first section covers line and staff organization, functions, and techniques. Among the subjects covered in this section are production management techniques; industrial engineering; cost accounting techniques; bank financing; quality control (objectives, organization, methods, and equipment); statistical quality control; pack statistics as a tool of management; plant safety; and research and development. Facilities, utilities, and sanitation are examined in the second section. In addition to a chapter on food plant sanitation, the section discusses the use of electricity, water, steam, and refrigeration in food processing. There is even a chapter on radiation processing. The third section discusses raw materials--production, harvesting, receiving, and preparing. One chapter deals with commercial fishery methods, and included is a discussion of the major food fisheries, fishing gear and methods, and handling and preserving the catch. Another chapter deals specifically with the processing of seafoods, and examines handling of fresh and frozen fish, preparation of precooked frozen products, canning, curing, and shellfish. The objectives, as stated by the authors, in assembling the information included in the book are to: (1) furnish general management with a gage for sound evaluations and decisions by technical personnel; (2) furnish students and supervisors with a general knowledge of food-processing techniques, and provide a guide to detailed information on specific subjects; (3) promote coordination and cooperation of all facets of supervision in food-processing operations. The subjects covered are presented by individuals with established experience and skill. Each chapter contains a selected and adequate bibliography. The book has a very good index.

-- Joseph Fileggi

FOREIGN POLICY:

The Department of State Bulletin, vol. XLVIII, no. 1244, April 29, 1963, 40 pp., printed, single copy 25 cents. Office of Media Services, Bureau of Public Affairs, U. S. Department of State, Washington, D. C. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Includes, among others, articles on: "The United States and Southeast Asia," by U. Alexis Johnson; "Readjusting United States Foreign Trade," by Leonard Weiss; and "The Foreign Aid Program," by Dean Rusk.

FRANCE:

"Bref Coup d'oeil sur la Production de l'industrie des Peches en 1962" (A Brief Glance at the Fisheries Industries Production in 1962), by L. Caroual, article, *La Pêche Maritime*, vol. 42, no. 1021, April 1963, p. 226, printed in French, single copy 11 NF (about US\$2.25). Les Editions Maritimes, 190 Boulevard Haussmann, Paris, France.

"La Consommation en France des Produits de la Mer" (French Consumption of Marine Products), article, *Marchés du Poisson (Fish Markets)*, vol. 1, no. 1, September 1962, pp. 15-18, illus., printed in French, annual subscription rate (11 issues) outside France 32 NF (about US\$6.50). *Marchés du Poisson*, Boite Postale No. 180, Lorient, France. This article is

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

included among many others in the first issue of a new periodical devoted to the French fishing industry.

"Le 'New Deal' de la Peche Francaise" (The "New Deal" in the French Fisheries), article, *La Peche Maritime*, vol. 42, no. 1021, April 1963, pp. 217-225, illus., printed in French, single copy 11 NF (about US\$2.25). Les Editions Maritimes, 190 Boulevard Haussmann, Paris, France.

FREEZE-DRYING:

"Freeze-Drying Ready for Rapid Dollar Growth," article, *The Farm Index*, vol. 1, no. 2, November 1962, pp. 11-12, illus., printed, single copy 20 cents. Economic Research Service, U.S. Department of Agriculture, Washington, D. C. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) "Freeze-drying, today's infant in food processing, is expected to be a one-half to one billion-dollar-a-year operation by 1970," states the author. Among the freeze-dried products now on the market are crab meat and shrimp. Among foods with a market potential for freeze-drying are fish cakes and fish sticks.

FREEZERSHIP:

The Conversion of the Side Trawler NARFI to Freeze Whole Fish, 2 pp., processed. J. & E. Hall Limited, Dartford, Kent, England, May 21, 1963.

FRESHNESS OF FISH:

Ein neue elektronisches Schnellverfahren zur Ermittlung der Frische von Seefischen (A New Electronic Method of Determining the Freshness of Salt-Water Fish), by Chr. Hennings, 17 pp., illus., printed in German. (Reprinted from *Zeitschrift für Lebensmittel-Untersuchung und-Forschung*, vol. 119, no. 6, 1963, pp. 461-477.) Institut für Fischverarbeitung der Bundesforschungsanstalt für Fischerei, Hamburg, German Federal Republic.

Fish Tester V, 11 pp., illus., printed. Intelectron International Electronics GMBH & Co., P. O. Box 12101, Hamburg-Lokstedt 1, German Federal Republic. Describes a fish freshness tester which was developed especially to enable the layman on board a trawler, in the fish market, and in the fish trade to determine the freshness of edible fish quickly and objectively without the fish being damaged or affected in any way. With its help, it is immediately possible (1) to check on board a trawler at any time the condition of the catch on ice, so that it can be decided whether to continue fishing or return to port; (2) to sort out the landed catch in the fish market according to quality; (3) to check and ensure the uniformity of quality in the auction boxes; (4) for the fish trade to check the goods acquired by it as to quality and storage possibilities, so that arrangements for the most economic transportation can be made; (5) for the fishing industry to sort out its raw material for definite manufacturing purposes, and to guarantee minimum qualities for deep-frozen fillets; and (6) for scientific research to study to a greater extent and more easily than before the influences affecting quality, and to check the efficiency of measures taken to maintain the quality.

FRESH-WATER FISH:

Freshwater Fishes of the World, by Gunther Sterba (translated and revised by Denys W. Tucker), 878

pp., 192 plates, illus., printed, 70s. (US\$9.80). Vista Books, Longacre Press, Ltd., London, England, 1962. Provides basic data on the identification and aquarium biology of some 1,300 species of fresh-water fish. This book was written for the serious aquarist, but since behavior investigations are becoming increasingly prominent in the ichthyological literature it is of value also to the zoologist.

GEAR:

"Evaluation of Effect of Trotline Use on the Potomac River Fishery," by Albert E. Sanderson, Jr., article, *Proceedings of the Fifteenth Annual Conference, Southeastern Association of Game and Fish Commissioners*, pp. 314-319, printed. Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1961.

"The Selectivity and Effectiveness of Bait and Snag Lines Fished in the TVA Lakes of Alabama," by C. E. White, Jr., article, *Proceedings of the Fifteenth Annual Conference, Southeastern Association of Game and Fish Commissioners*, pp. 359-367, printed. Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1961.

GENERAL:

"Fisheries in the Year 2000," by J. L. Kask, article, *Canadian Fisherman*, vol. 50, no. 6, June 1963, pp. 42-45, illus., printed, single copy C\$3. National Business Publications Limited, Gardenvale, Quebec, Canada. Canada's top fisheries scientist takes a realistic look at the future and makes some predictions which raise the question--where will the Canadian fishing industry, at its present rate of progress, fit into such a future?

Fishing News International, vol. 2, no. 2, April-June 1963, 136 pp., illus., printed, single copy 6s. 6d. (about 95 U. S. cents). Arthur J. Heighway Publications Ltd., Ludgate House, 110 Fleet St., London EC4, England. Includes, among others, these articles: "Progress in Far East Fisheries," by D. B. Finn; "French Deep-Sea Fishing is at a Turning Point," by Dominique Gep; "Economic Potential of Australian Tuna," by D. J. Hardman; "Mechanization of Fishing Craft," by Jan-Olof Traung; "All-Aluminum Menhaden-Vessel," by J. D. Smith; "Expedition Fishing," by J. A. Hind; "Technical Advances in Knotless Nets," "Stern Trawling and Gear Design," by John Garner; "Bermuda Fisheries," by E. Hess; "Searching the Oceans," by A. G. Koganovsky; and "Place of Economics in Fisheries," by G. M. Gerhardsen.

GHANA:

Preparing Shipments to Ghana, OBR-63-93, 12 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., April 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Presents information on shipping documents; labeling, marking, and packing; customs procedures; and related subjects.

GOVERNMENT ASSISTANCE TO FISHERIES:

"Les Aides a la Peche en Europe Occidentale" (Assistance to the Fisheries in Western Europe), article, *La Peche Maritime*, vol. 42, no. 1021, April 1963, pp. 232-234, printed, single copy 11 NF (about

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

US\$2.25). Les Editions Maritimes, 190 Boulevard Haussmann, Paris, France.

GREECE:

Alieia (Fishing), vol. 16, no. 191, May 1963, 60 pp., illus., printed in Greek and English. Alieia, 51 Stadiou Str., Athens (121), Greece. Includes, among others, articles on: "Greek Fishing Production and Prices," by Basil D. Castriotis; "Greek Deep Sea Fishing and the EEC," by M. E. Galazidis; "The Effects of the Trawl Fishing on the Stocks of Different Commercial Species in Greek Waters," by C. I. Ananiadis; and "Sponge Collecting Aqua-Lungs Versus Heavy Diving Suits," by N. A. Komarow.

HADDOCK:

"Biologia, Biometria, Anatomia y Pesca del Agelfino (Melanogrammus aeglefinus)" (Biology, Biometry, Anatomy and Fishing of the Haddock--Melanogrammus aeglefinus), by Alfonso Lucio Rojo, article, Trabajos Instituto Espanol de Oceanografia, No. 27, 1959, pp. 1-67, printed in Spanish. Instituto Espanol de Oceanografia, Alcalá 27, Madrid, Spain.

HERBICIDES:

"Preliminary Results of Herbicides Tested on Certain Aquatic Plants in Florida," by C. L. Phillipy, article, Proceedings of the Fifteenth Annual Conference, Southeastern Association of Game and Fish Commissioners, pp. 288-295, printed. Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1961.

HERRING:

"Storage of North Sea Herring in Cooled Sea Water. I--Technological Investigations," by S. I. Gakichko, K. M. Fomicheva, and T. A. Dubrovskaya; "II--Biochemical Investigations," by S. I. Konopkaite and others; "III--Microbiological Investigations," by R. M. Izrailit, articles, Kholodil'naia Tekhnika, no. 5, 1962, pp. 25-34, illus., printed in Russian. Kholodil'naia Tekhnika, c/o Four Continent Book Corp., 822 Broadway, New York 3, N. Y.

ICHTHYOLOGY:

Ichthyology, the Study of Fishes, by Karl F. Lagler, John E. Bardach, and Robert R. Miller, printed, \$12.50. John Wiley and Sons, Inc., 440 Fourth Ave., New York 16, N. Y., 1962. This book is not intended to be a comprehensive study but rather a treatment of the broad principles of the study of fishes. The text is developed in an orderly sequence of chapters, which include the relationships of fish to man and other animals; major groups of fishes; fish anatomy; skin; foods, nutrition, and growth; skeleton; build and movement; blood and circulation; respiration; excretion and osmotic regulation; reproduction; integration (nervous and endocrine systems); genetics and evolution; systematics and nomenclature; and ecology and zoogeography. The use of special references at the end of each chapter rather than through documentation is in keeping with the general aim of the text. Inclusion of both systematic and subject indexes add to the usefulness as a general reference.

INTERNATIONAL COMMISSIONS:

Report of Working Group of Scientists on Fishery Assessment in Relation to Regulation Problems (Supplement to Annual Proceedings, vol. 11), 81 pp.,

illus., printed, C\$2. International Commission for the Northwest Atlantic Fisheries, Halifax, N. S., Canada, 1962. A report submitted to the International Commission for the Northwest Atlantic Fisheries at the 11th Annual Meeting in Washington, D. C., June 1961. Covers methods and interpretation of mesh assessments; the fisheries for cod, ocean perch, haddock, and plaice; an evaluation of the Atlantic halibut fishery; mesh assessments at present levels of fishing, and evaluation of uniform versus differential mesh regulation; and other similar information.

ITALY:

Annuario Statistico della Pesca e della Caccia, 1962 (Annual Statistics of Fish and Game, 1962), vol. X, 1963, 180 pp., illus., printed in Italian. Istituto Centrale di Statistica, Italian Republic, Rome, Italy. Contains 1961 data with comparisons on fishery landings; and receipts, sales, and average prices at principal markets. Also contains hunting data.

IVORY COAST REPUBLIC:

Basic Data on the Economy of the Republic of Ivory Coast, OBR-63-32, 12 pp., illus., printed 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., January 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Discusses, among other items, the fishing activity which takes place in the Gulf of Guinea and the sea and lagoons. Also discusses the development of the fishery industry for the world tuna market.

JAPAN:

Memoirs of the Faculty of Fisheries Kagoshima University, vol. 11, no. 2, December 1962, 104 pp., illus., printed in Japanese with English abstracts. The Faculty of Fisheries, Kagoshima University, Kagoshima, Japan. Includes, among others, articles on: "On the Effect of Trail Rope as a Jury Rudder of a Small Fishing Boat. I--Preliminary Experiments of Resistance and Yawing by a Model Ship," by Y. Narasako and T. Takeda; and "Notes on the Early Development of Scyllarid Lobster, Parribacus antarcticus (Lund)," by T. Saisho.

LOUISIANA:

"Freshwater Commercial Fishing in Louisiana," by Grits Gresham, article, Louisiana Conservationist, vol. 15, nos. 5 & 6, May-June 1963, pp. 6-8, 23, illus., printed. Louisiana Conservationist, Wild Life and Fisheries Bldg., 400 Royal St., New Orleans 16, La.

MACKEREL:

"A Histophysiological Study of the Red and White Muscles of the Mackerel," by J. C. George, article, The American Midland Naturalist, vol. 68, no. 2, 1962, pp. 487-494, printed. American Midland Naturalist, University of Notre Dame, Notre Dame, Ind.

MARINE FAUNA:

Dangerous Marine Animals, by Bruce W. Halstead, 146 pp., illus., printed \$4. Cornell Maritime Press, Inc., Box 109, Cambridge, Md., 1959.

MARLIN:

Postlarva of the White Marlin, TETRAPTURUS ALBIDUS, from the Florida Current Off the Carolinas,

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

by Donald P. de Sylva, Contribution No. 456, 10 pp., illus., printed, (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 13, no. 1, March 1963, pp. 123-132.) The Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

MISSOURI RIVER:

"Some Fishes of the Lower Missouri River," by Herbert J. Fisher, article, The American Midland Naturalist, vol. 68, no. 2, 1962, pp. 424-429, American Midland Naturalist, University of Notre Dame, Notre Dame, Ind.

NAVIGATION:

United States Coast Pilot 5, Atlantic Coast--Gulf of Mexico, Puerto Rico, and Virgin Islands, 264 pp., printed, \$2.50. Coast and Geodetic Survey, U. S. Department of Commerce, Washington 25, D. C., June 16, 1962. Includes the results of thorough field inspections made in the Gulf of Mexico in 1961, and in Puerto Rico and the Virgin Islands early in 1962.

NETS:

"Efficiency and Selectivity of Flag Gill Nets Fished in Lake Bistineau, Louisiana," by Victor W. Lambou, article, Proceedings of the Fifteenth Annual Conference, Southeastern Association of Game and Fish Commissioners, pp. 319-359, printed, Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1961.

NORTH ATLANTIC:

"Tilstanden i havet under den unormale vinter 1963" (Weather Conditions at Sea and in the Harbors during the Severe Winter of 1963), by Jens Eggvin, article, Fiskets Gang, vol. 49, no. 15, April 11, 1963, pp. 213-220, illus., printed in Norwegian with English summary. Fiskets Gang, Fiskeridirektoratet, Radstuplass 10, Bergen, Norway.

NORWAY:

"La Pesca y la Conserva Noruegas, en 1962" (The Norwegian Fishery and Canned Fish Pack in 1962), article, Industrias Pesqueras, vol. XXXVII, no. 864, April 15, 1963, pp. 136-137, printed in Spanish, single copy 35 ptas. (about 60 U. S. cents), Industrias Pesqueras, Policarpo Sanz, 21-2^o, Vigo, Spain.

"Smatralernes lonnsomhet 1961" (Small Trawler Earnings, 1961), article, Fiskets Gang, vol. 49, no. 14, April 4, 1963, pp. 197-202, printed in Norwegian. Fiskets Gang, Fiskeridirektoratet, Radstuplass 10, Bergen, Norway.

OCEANOGRAPHY:

"New Facilities at Woods Hole to Include Airplane," article, Newsletter, no. 1-63, January 31, 1963, pp. 4-5, processed. National Oceanographic Data Center, Naval Weapons Plant, Washington 25, D. C.

"New Instrumentation Center Dedicated," article, Newsletter, no. 1-63, January 31, 1963, pp. 1-2, illus., processed. National Oceanographic Data Center, Naval Weapons Plant, Washington 25, D. C.

"Recent Developments in Research Instrumentation," article, Newsletter, no. 1-63, January 31, 1963, pp. 2-4, processed. National Oceanographic Data Center, Naval Weapons Plant, Washington 25, D. C.

A Review of "Oceanography 1960 to 1970" and Comments on the Interagency Committee on Oceanography, Fiscal Year 1962 Program, 47 pp., processed. Interagency Committee on Oceanography, Office of Naval Research, Room 1818, 17th St. and Constitution Ave. NW., Washington 25, D. C., August 1961.

The Sea (Ideas and Observations on Progress in the Study of the Seas). Vol. II--Composition of Sea Water (Comparative and Descriptive Oceanography), edited, by M. N. Hill, 569 pp., illus., printed, \$25. Interscience Publishers, John Wiley and Sons, Inc., New York, N. Y., 1963. This is the second volume of a three-volume series directed toward progress made in the study of the seas during the past 20 years and toward depicting present ideas and research trends. Subject matter ranges from the chemistry of the sea through productivity, food chain relations, and descriptions of current system and regional oceanography to the bathscaph as a research instrument. Biology is restricted to aspects directly related to the physical, chemical, and geological processes in the ocean and on its floor.

Serial Atlas of the Marine Environment--North Atlantic Temperatures at a Depth of 200 Meters, by Elizabeth H. Schroeder, Folio 2, 21 pp., illus., printed. American Geographical Society, Broadway at 156th St., New York 32, N. Y., 1963. About 96,000 temperature readings taken at the 200-meter depth throughout the North Atlantic have been organized and their distributions mapped in this folio. The Serial Atlas, a type of atlas never before produced in this country, was introduced last year with the publication of Folio 1, a study of sea surface temperatures in the Western North Atlantic. The Atlas is planned to foster more interdisciplinary communication and to provide scientists with an essential means of making comparative studies.

United States National Oceanographic Program, Fiscal Year 1962, Interagency Committee on Oceanography of the Federal Council for Science and Technology, 36 pp., processed. Interagency Committee on Oceanography, Office of Naval Research, Room 1818, 17th St. and Constitution Ave. NW., Washington 25, D. C., 1962.

PERU:

"Can Peru Maintain Its Rate of Fishing Growth?" by A. Jimenez, article, World Fishing, vol. 12, no. 5, May 1963, pp. 42-43, illus., printed, single copy 3s. (about 42 U. S. cents). John Trundell & Partners Ltd., St. Richard's House, Eversholt St., London NW1, England. The spectacular rise of the Peruvian fishing industry in the past 5 years has astonished the fishing world. About 1,000 purse seiners are now operating, 400 were built last year, and another 400 are planned for the current year. This article gives the background story and describes some of the ways in which it may develop.

PLANKTON:

"Plankton: Optimum Diversity Structure of a Summer Community," by Bernard C. Patten, article, Science, vol. 140, no. 3569, May 24, 1963, pp. 894-898, illus., printed, single copy 35 cents. American Association for the Advancement of Science, 1515 Massachusetts Ave. NW., Washington 5, D. C.

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

"Zooplankton Species Groups in the North Pacific," by E. W. Fager and J. A. McGowan, article, Science, vol. 140, no. 3566, May 3, 1963, pp. 453-460, illus., printed, single copy 35 cents. American Association for the Advancement of Science, 1515 Massachusetts Ave. NW., Washington 5, D. C.

POLAND:

Polish Maritime News, vol. VI, no. 56, April 1963, 34 pp., illus., printed. Polish Chamber of Foreign Trade, Maritime Branch, Gdynia, ul. Pulaskiego 6, Poland. This number is devoted to sea fisheries and building of fishing vessels. It includes, among others, articles on expansion of sea fisheries, future tasks of the Polish sea fisheries, fish-processing industry, imports and exports, Sea Fisheries' Institute, deep-sea fisheries' schools, construction of fishing vessels, and building motherhips for fishing fleets. Also includes the following articles: "Starboard Fishing Trawler Build in Series on French Orders;" "A New Fish Factory-Trawler of 1,250 T.D.W.;" "B-21'-Type Fishing Trawler, General Arrangement and Description;" "Freezing Fishing Trawler of 1,300 T.D.W. Under Construction;" and "B-23'-Type Fishing Trawler of 600 T.D.W. with Freezing Arrangements."

POLLUTION:

"The Need and Value of Water Quality Criteria with Special Reference to Aquatic Life," by Clarence M. Tarzwell, article, The Canadian Fish Culturist, Issue 31, 1962, pp. 35-41, printed. Department of Fisheries of Canada, Ottawa, Canada.

"The Relative Resistance of Thirteen Species of Fishes to Petroleum Refinery Effluent," by Claud M. Ward and W. M. Irwin, article, Proceedings of the Fifteenth Annual Conference, Southeastern Association of Game and Fish Commissioners, pp. 255-276, printed. Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1961.

ROUGHFISH:

"Experimental Non-Game Fish Eradication Program," by Monte Richards, article, Idaho Wildlife Review, vol. XV, no. 1, July-August 1962, pp. 3-6, illus., printed. Idaho Fish and Game Commission, 518 Front St., Boise, Idaho.

SALMON:

"Atlantic Salmon Headed for Extinction?" by P. J. Antle, article, Canadian Fisherman, vol. 50, no. 6, June 1963, p. 54, illus., printed, single copy C\$3. National Business Publications Limited, Garden-vaie, Quebec, Canada. All efforts should be directed towards eliminating the various causes responsible for the destruction of young salmon and the prevention of adults from reaching the spawning grounds. The alternative to this is continued depletion of the salmon population, states the author.

Estimating Absolute Age Composition of California Salmon Landings, by Joseph H. Kutkuhn, Fish Bulletin No. 120, 47 pp., printed. Documents Section, Printing Division, Department of Fish and Game, No. Seventh St., at Richards Blvd., Sacramento 14, Calif., 1963.

The History of the Early Stuart Sockeye Run, by A. C. Cooper and R. A. Henry, International Pacific Salm-

on Fisheries Commission, Progress Report No. 10, 52 pp., illus., processed. International Pacific Salmon Fisheries Commission, New Westminster, B. C., Canada, 1962. Historical evidence as far back as 1820 indicates that the Early Stuart sockeye run to the Fraser River never has been large and was subject to significant variations in abundance caused primarily by obstructions to its upriver migration in the Fraser Canyon. The construction of fishways at Hell's Gate, which had been an obstruction even prior to the Hell's Gate block in 1913, coupled with certain regulatory protection in the commercial fishery, increased the average size of the Early Stuart run about seven times during the period 1949 to 1961. The increased size of the run and the occurrence of high river levels in recent years during the upriver migration of the Early Stuart sockeye have led to the discovery of several points that are still obstructions or present difficult passage. Recommendations are made for the removal of the remaining known obstructions, which are estimated to have already caused a loss of nearly one million dollars in the catch of sockeye, and which could cause further and more serious losses in future years under similar river flow conditions.

"O Mekhanismakh Adaptatsii k Izmeneniyam Solenosti Vody u Nerka--Oncorhynchus nerka (Walb.)" (The Mechanisms of Adaptation of the Red Salmon--Oncorhynchus nerka Walb.--to Changes in the Salinity of Water), by M. G. Zaks and M. M. Sokolova, article, Voprosy Ikhtiologii, vol. 1, no. 2, 1961, pp. 338-346, printed in Russian. Akademia Nauk, SSSR, Ikhtiologicheskaya Kommissiya, Moscow, U.S.S.R.

Resumption of Feeding by and Survival of Adult Sockeye Salmon (ONCORHYNCHUS NERKA) Following Advanced Gonad Development, by J. R. McBride and others, 8 pp., illus., printed. (Reprinted from Journal of the Fisheries Research Board of Canada, vol. 20, no. 1, 1963, pp. 95-100.) Queen's Printer and Controller of Stationery, Ottawa, Canada.

"The Salmon Fishery in Nova Scotia," by N. E. J. MacEachern and J. R. MacDonald, article, The Canadian Fish Culturist, Issue 31, 1962, pp. 43-57, printed. Department of Fisheries of Canada, Ottawa, Canada.

"Salmon with Fish-Hooks," by H. Isak, article, Biological Abstracts, vol. 40, no. 6, part 1, 1962, no. 21922, printed. University of Pennsylvania, 3815 Walnut St., Philadelphia 4, Pa.

Studies of Alaska Red Salmon, edited by Ted S. Y. Koo, 457 pp., illus., printed, \$8.50. University of Washington Press, Seattle, Wash., 1962.

"Territorial Behavior of Juvenile Atlantic Salmon (Salmo salar L.)," by Miles H. A. Keenleyside and Fred T. Yamamoto, article, Behaviour, vol. 19, no. 1-2, 1962, pp. 139-169, printed. E. J. Brill, Leiden, Netherlands.

SARDINES:

Works of the Institute of Oceanography and Fisheries, OTS 60-21660, 111 pp., illus., printed, \$1. Translated from the Serbo-Croatian, Godisnjak, vol. 2, 1939/1940; Izvjescia, vol. 4, no. 40, 1954; and Go-

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

disnjak, vol. 1, 1938.) Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C., 1962. Includes the following articles: "The Food of Sardines (*Clupea pilchardus* Walb.) in the Metamorphotic Stage," by A. Ercegovic; "The Spawning and Spawning Areas of the Sardine (*Sardinus pilchardus* Walb.) in the Adriatic Sea from 1947-1950," by T. Gamulin; and "The Importance of Fishery Statistics to the Study of Marine Fishery Biology with Special Regard to the Adriatic Sardine," by A. Kotthaus.

SEA LAMPREY:

"Sea Lamprey Larvae in Lentic Environments," by Wilbert C. Wagner and Thomas M. Stauff, article, Transactions of the American Fisheries Society, vol. 91, no. 4, 1962, pp. 384-387, printed. Secretary, American Fisheries Society, P. O. Box 483, McLean, Va.

SEA URCHIN:

The Biology of *LYTECHINUS VARIEGATUS*, by H. B. Moore and others, Contribution No. 444, 31 pp., illus., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 13, no. 1, March 1963, pp. 23-53.) The Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

SHAD:

"The Occurrence and Distinction of Threadfin Shad in Southern California Ocean Waters," by James C. Thomas, article, California Fish and Game, vol. 48, no. 4, 1962, pp. 282-283, printed. Printing Division, Documents Section, No. Seventh St. at Richards Blvd., Sacramento 14, Calif.

SHRIMP:

"Biology of the Sand Shrimp, *Crangon septemspinosa*, in the Shore Zone of the Delaware Bay Region," by Kent S. Price, Jr., article, Chesapeake Science, vol. 3, no. 4, December 1962, pp. 244-255, illus., printed, single copy 75 cents. Natural Resources Institute, University of Maryland, Chesapeake Biological Laboratory, Solomons, Md.

SPAIN:

Act No. 147/1961 on the Renewal and Protection of the Fishing Fleet, FAO--Food and Agriculture Legislation, vol. XI, no. 3, December 23, 1961, Spain, XVI/4, 7 pp., printed, \$1. (Boletin Oficial del Estado No. 311, December 29, 1961, p. 18345.) Columbia University Press, International Documents Service, 2960 Broadway, New York 27, New York. Part I describes the general provisions of the Act; Part II, regulation of sea fisheries; Part III, plan for renewal and enlargement of the fishing fleet; and Part IV, exemptions from taxes and duties.

SPEARFISH:

A New Western Atlantic Spearfish, *TETRAPTURUS PFLUEGERI*, with a Redescription of the Mediterranean Spearfish, *TETRAPTURUS BELONE*, by C. Richard Robins and Donald P. de Sylva, Contribution No. 455, 39 pp., illus., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 13, no. 1, March 1963, pp. 84-122.) The Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

SPORT FISHING:

"A Survey of Salt-Water Sport Fishing in Virginia, 1955-1960," by C. E. Richards, article, Chesapeake

Science, vol. 3, no. 4, December 1962, pp. 223-235, illus., printed, single copy 75 cents. Natural Resources Institute, University of Maryland, Chesapeake Biological Laboratory, Solomons, Md.

SPOT:

"Movements of Spot, *Leiostomus xanthurus*, in the Lower Chesapeake Bay," by Anthony L. Pacheco, article, Chesapeake Science, vol. 3, no. 4, 1962, pp. 256-257, printed. Department of Research and Education, Chesapeake Biological Laboratory, Solomons, Md.

SQUID:

A New Species of Cranchiid Squid, *PHASMATOPSIS LUCIFER*, from the Gulf of Mexico, by Gilbert L. Voss, Contribution No. 454, 7 pp., illus., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 13, no. 1, March 1963, pp. 77-83.) The Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

STRIPED BASS:

"Distribution and Abundance of Striped Bass (*Roccus saxatilis*, Walbaum) on the Florida Gulf Coast," by James M. Barkuloo, article, Proceedings of the Fifteenth Annual Conference, Southeastern Association of Game and Fish Commissioners, pp. 223-226, printed. Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1961.

TAGGING:

"On the Tagged Ratio Methods to Remove the Bias of Estimate Caused by Type C Systematic Errors in the Petersen-Type Tagging Experiment," by Yukio Nose, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 28, no. 7, 1962, pp. 686-694, printed. Japanese Society of Scientific Fisheries, Shiba-Kaigandori 6, Minato-ku, Tokyo, Japan.

TAIWAN:

Basic Data on the Economy of Taiwan (Formosa), by Maurice Kogon, OBR-63-34, 28 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., February 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Discusses, among other items, the fishing industry, gear and vessels, record 1961 landings, and consumption of fishery products.

TEXAS:

Effects of Hurricane Carla on the Ecology of Redfish Bay, Texas, by Carl H. Oppenheimer, Contribution No. 453, 13 pp., illus., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 13, no. 1, March 1963, pp. 59-72.) The Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

TILAPIA:

"The Biology of *Tilapia nilotica* Linnaeus," by Luther G. McBay, article, Proceedings of the Fifteenth Annual Conference, Southeastern Association of Game and Fish Commissioners, pp. 208-218, printed. Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1961.

TOXICITY:

"Die Toxicitat des Alpha-Pentachlorcyclohexens (1) gegenuber Fischen" (The Toxicity of the Alpha-

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

Pentachlorocyclohexens (1) to Fish), by Miroslav Toman and Zdenek Stota, article, Biologia, vol. XVII, no. 6, 1962, pp. 460-462, illus., printed in German with Slovenian, Russian, and English abstracts. Vydava Vydavatel'stvo Slovenskej Akademie Vied, Bratislava, Czechoslovakia.

"The Toxicology and Toxicity of Toxaphene with Respect to Fish and Aquatic Food Animals," by R. Koeppel, article, Biological Abstracts, vol. 40, no. 6, Part 1, 1962, No. 21929, printed. University of Pennsylvania, 3815 Walnut St., Philadelphia 4, Pa.

TROUT:

"On Improving the Efficiency of Feed for Fish Culture. II--Digestibilities of Feeding-Stuff for Rainbow Trout and Some Trials on the Improvement," by Juami Yamada and Ryo Kikuchi, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 28, no. 9, 1962, pp. 905-908, printed. Japanese Society of Scientific Fisheries, Shiba-Kaigandori 6, Minato-ku, Tokyo, Japan.

Tests for Increasing the Returns of Hatchery Trout, February 1, 1961 to January 31, 1962, by Monte Richards and others, Federal Aid in Fish Restoration Project F 32-R-4, 29 pp., illus., processed. Fisheries Division, Department of Fish and Game, 518 Front St., Boise, Idaho, June 15, 1962.

TUNA:

"Little Tuna, Euthynnus alletteratus, in Northern Chesapeake Bay, Maryland, with an Illustration of Its Skeleton," by Romeo J. Mansueti and Alice J. Mansueti, article, Chesapeake Science, vol. 3, no. 4, 1962, pp. 257-263, printed. Department of Research and Education, Chesapeake Biological Laboratory, Solomons, Md.

"A Preliminary Report on Tuna in West Coast Waters of South Africa, Part 1," by B. van D. de Jager, C. S. de V. Neppen, and R. J. van Wyk, article, The South African Shipping News and Fishing Industry Review, vol. XVIII, no. 4, April 1963, pp. 62-67, 69, 71, illus., printed, single copy 25 cents. Thomson Newspapers, South African (Pty.) Ltd., Trust House, Thibault Sq., Box 80, Cape Town, South Africa Republic. The tuna fishery is a recent and promising addition to the South African fishing industry. Still in its infancy, this fishery is based on four species of tuna of which relatively little is known in that country. The purpose of this three-part article is to contribute to the knowledge of these four species--bluefin (Thunnus thynnus orientalis), longfin (Thunnus alalunga), yellowfin (Thunnus albacares), and bigeye (Thunnus obesus) tuna.

TURKEY:

Balik ve Balikcilik, vol. XI, nos. 3-4, March-April 1963, 30 pp., illus., printed in Turkish with English table of contents. Et ve Balik Kurumu G. M., Balikcilik, Mudurlugu, Besiktas, Istanbul, Turkey. Includes, among others, these articles: "Dolphin Processing with Semi Continuous Method;" "Decomposition of Fish Oils and Sea Mammal Fats, Studies of Conditions and Results," and "Turbots."

UNITED ARAB REPUBLIC:

Basic Data on the Economy of the United Arab Republic (Egypt), by Warren F. Looney, OBR-63-95, 16 pp.,

illus., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., April 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Information on fishing includes resources, annual commercial catch, foreign trade, the fishing fleet, freezing and canning facilities, and other topics. The report discusses geography and population, structure of the economy, agriculture, petroleum and mining, industry, and electric power. Also covers transportation, communications, finance, foreign trade, a program of economic development, and marketing facilities.

VESSELS:

"Modern Fishing Vessels and Gear," article, Trade News, vol. 15, no. 10-11, April-May 1963, pp. 3-6, illus., processed. Information and Consumer Service, Department of Fisheries, Ottawa, Canada.

VIET-NAM:

Basic Data on the Economy of Viet-Nam, OBR-63-5, 24 pp., illus., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., March 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Discusses, among other items, the fishing activity and its improvement through modernization with United States aid.

WEATHER CHARTS:

The following processed weather charts, 2 pp. each, are published by the Weather Bureau, U. S. Department of Commerce, Washington, D. C., and are for sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., 10 cents each. Charts show stations displaying small craft, gale, whole gale, and hurricane warnings, explanation of warning displays, and schedules of AM and FM radio, TV, and radiophone stations that broadcast weather forecasts and warnings.

Coastal Warning Facilities Chart, Cape Hatteras, N. C., to Brunswick, Ga., 1963.

Coastal Warning Facilities Chart, Eureka to Point Conception, Calif., 1963.

Coastal Warning Facilities Chart, Point Conception, Calif., to Mexican Border, 1963.

Coastal Warning Facilities Chart, Puerto Rico and Virgin Islands, 1963.

WHALES:

A Preliminary Investigation of the Blubber Oil from the Atlantic Bottlenose Whale, by P. M. Jangaard, R. D. Burgher, and R. G. Ackman, 3 pp., printed. (Reprinted from Journal of the Fisheries Research Board of Canada, vol. 20, no. 1, 1963, pp. 245-247.) Queen's Printer and Controller of Stationery, Ottawa, Canada.

WHALING:

"The Influence of Meteorological Factors on the Arctic Whaling," by Kenji Kurogane and Takahisa Nemoto, article, Norsk Hvalfangst-Tidende (The Norwegian Whaling Gazette), vol. 52, no. 4, April

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

1963, pp. 89-104, illus., printed. Hvalfangerforeningen, Sandefjord, Norway.

"Oceanography and Whaling Ground in the Subarctic Region of the Pacific Ocean," by Keiji Nasu, article, The Scientific Reports of the Whales Research Institute, no. 17, February 1963, pp. 105-155, illus., printed. Whales Research Institute, Geirui Kenkyusho 12-4, Tsukishim-Nishigashi-dori, Chuo-ku, Tokyo, Japan.

WORLD TRADE:

"L'Accord Commercial France-Japan et le Marche de la Peche" (The French-Japanese Commercial Agreement and the Fishery Market), by Robert Lenier, article, France Peche, no. 72, April 1963, pp. 17-19, printed in French, single copy 2.5 NF (about 55 U. S. cents). France Peche, Boite Postale 179, Lorient, France.

YELLOW PIKE:

"Home Behavior of Spawning Walleyes," by Donald E. Olson and Warren J. Scidmore, article, Transactions of the American Fisheries Society, vol. 91, no. 4, 1962, pp. 355-361, printed. Secretary, American Fisheries Society, P. O. Box 483, McLean, Va.

"Homing Behavior in Walleyes," by Walter R. Crowe, article, Transactions of the American Fisheries Society, vol. 91, no. 4, 1962, pp. 350-354, printed. Secretary, American Fisheries Society, P. O. Box 483, McLean, Va.

YUGOSLAVIA:

Informativni Bilten (Information Bulletin), printed monthly in Serbo-Croatian. Institut za Tehnologiju Ribe, P. O. Box 110, Zadar, Yugoslavia. Contains, among others, the following articles:

_____, No. 1-2, Jan.-Feb. 1962. "Variations of Fat Content in Adriatic Sardines during 1961," by H. Lisac.

_____, No. 3-4, March-April 1962. "Fundamental Principles in Modern Quality Control," by D. Franolic; "The Quality of Water Used in Fish Canning Plants," by V. Strcaj; "The Quality Control of Vegetables Used for Canning with Fish," by P. Milicic; "The Quality Control of Tomato Paste Used in Fish Canning Plants," by K. Brenko.

_____, No. 5-6, May-June 1962. "Quality Control of Fish During the Preparation for Precooking," by V. Perovic; "Quality Control of Tin Plate Cans in Fish Canning Industry," by D. Franolic; "Quality Control of Fish as Raw Material," by S. Bacic and "Control of Cans Seaming," by K. Sepic.

_____, No. 7-8, July-August 1962. "Control of Canned Fish Retorting," by P. Baralic and H. Lisac; "Some Problems in Quality Control of Canned Fish as Final Product," by S. Banjad.

_____, No. 9-10, September-October 1962. "Quality Control of Other Raw Materials in Fish Canning Industry," by K. Sepic; "Quality Control during Salting and Storage of Salted Fish," by V. Perovic; and "Quality Control of Oil in Fish Canning Industry," by S. Banjad.

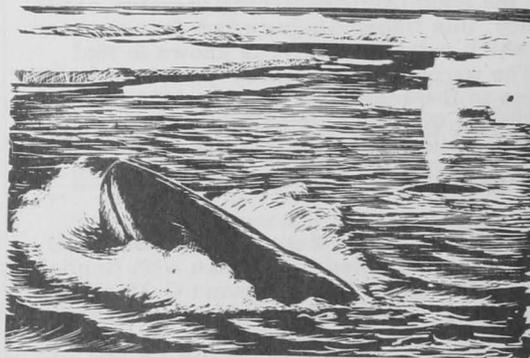
_____, No. 11-12, November-December 1962. "Experimental Icing and Chilling of Sardines" and "A Note on Fat Content of Sprats," by H. Lisac.

--Listings under Yugoslavia supplied by K. Sepic.



SPEED OF WHALES

Blue whales, fin whales, and sei whales, migrating to summer feeding areas or to winter breeding places, moved at a speed considerably exceeding 15 m.p.h. for quite a long time; in a little more than one hour they could appear at the skyline, catch up with our vessel and disappear somewhat ahead of it. Therefore, they must have been moving at a speed of about 20 miles per hour --B. A. Zenkovich, reporting on sea mammals as observed by the round-the-world expedition of the USSR Academy of Sciences in 1957/58. (Australian Fisheries Newsletter, December 1962.)



Easy Does It...with TUNA



SUMMERTIME IS TUNA TIME

Wonderful tuna — flavorful convenience in a can — truly the chef's best friend. Always available, priced right and prepared so easily in so many sparkling ways. Versatile tuna goes with so many things — it flatters fruit — teams with greens — and coddles casseroles. Tuna sings in sandwiches, too! Terrific tuna, easy and elegant, bright and light, at your fingertips everywhere.

SPARKLING SALADS

Tempting Tossed Salad . . .

Spark interest in a bowl of tossed salad by adding chunks of delicious tuna.

Tuna Potato Salad . . .

Send an old stand-by soaring to new flavor heights by mixing chunks of tuna with your favorite potato salad.

Tuna Louis . . .

Top shredded lettuce with a generous portion of flaked tuna. Cover with a spicy Louis Dressing and garnish with tomato wedges.

Tuna Slaw . . .

Give added interest to a crisp cabbage slaw with chunks of luscious tuna.

Macaroni Salad . . .

For a delicious flavor accent, try adding chunks of tuna to your macaroni salad.

Glorified Fruit Salad . . .

Make a summer fruit salad extraordinarily good with the addition of chunks of tuna and a sprinkling of toasted almonds.

Summer Seagarden . . .

Tomatoes stuffed with tuna salad are hearty main dish salads for hot weather appetites.

Surprise Aspic . . .

Accent a spicy tomato aspic by folding in flakes of hearty tuna. Serve on salad greens, garnish with avocado slices and nippy sour cream dressing.

Summer Sparkler . . .

As a variation on the ever popular waldorf salad add chunks of tuna for a wonderful flavor combination.

QUICK CASSEROLES

Tuna-Macaroni Au Gratin . . .

Add chunks of tuna to your macaroni and cheese. Bake in individual casseroles with a tomato slice on top.

Tuna Stroganoff . . .

For an easy but elegant luncheon dish serve Tuna Stroganoff. Heat tuna, condensed tomato soup, sour cream, and sliced mushrooms. Season with tabasco, Worcestershire sauce, a little salt and pepper. Serve over parsley-rice.

Tuna Italienne . . .

Make a sure-fire hit with Tuna Lasagne. Use

your own special lasagne recipe but use tuna in place of the regular meat.

Tuna Imperial . . .

Combine tuna, condensed cream of mushroom soup, cooked peas, and a dash or two of pepper. Place in individual casseroles, top with grated cheese and bake until heated through.

Tuna Tomato Medley . . .

Stuff tomatoes with a combination of flaked tuna, cooked rice, grated cheese, beaten egg, and seasonings. Bake until tomatoes are tender.

Tuna Casserole Quickie . . .

Make a casserole of tuna and drained cut green beans, topped with cream of mushroom soup sauce subtly seasoned with curry powder. Sprinkle with a mixture of grated cheese and bread crumbs. Bake until bubbly.

Southern Tuna Favorite . . .

Add chunks of tuna to a rich and colorful a la king sauce. Serve over hot cornbread. Delicious!

SATISFYING SANDWICHES

Open Face Special . . .

On toast — arrange crisp lettuce, tomato slices, and flaked tuna. Top with Louis Dressing and garnish with hard-cooked egg slices.

Tuna Cheese Dreams . . .

Make a delightful sandwich spread by combining flaked tuna, cream cheese, chopped ripe olives, toasted slivered almonds, and drained crushed pineapple, mixed to spreading consistency with a little lemon juice.

Tuna-Cheese Melting Moments . . .

Spread bread with mustard-butter. Cover with tuna salad and top with a slice of pimiento

cheese. Bake in a very hot oven until bread toasts and cheese melts. Wonderful with soup or a chef's salad.

Luncheon Special . . .

Tuna salad sandwiches, dipped in french toast batter, and fried to a golden brown. Wonderfully good!

Meal in One . . .

Variation on a popular theme — Tuna Submarine. Spread submarine rolls with your favorite tuna salad. Top with onion rings, tomato slices, cheese, and lettuce.

Tuna Pizza . . .

Looking for a new pizza flavor combination? Spread pizza crusts with pizza sauce, and top with flaked tuna, ripe olives, and mozzarella cheese.

Hot and Hearty . . .

Serve a thick, juicy tuna burger topped with a tomato slice and mayonnaise.

Tuna Rarebit Deluxe . . .

A super duper luncheon sandwich! Add chunks of tuna to cheese or tomato rarebit and serve piping hot over asparagus spears on toast.

Issued by Bureau of Commercial Fisheries, U. S. Fish and Wildlife Service and the U. S. Department of Agriculture as Part of a Continuing Marketing Program in Cooperation with the Fishing and Agricultural Industries